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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,496	03/08/2004	Ben Esposito	174/299	3030

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EXAMINER

LUU, AN T

ART UNIT PAPER NUMBER

2816

DATE MAILED: 05/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/796,496

Applicant(s)

ESPOSITO ET AL.

Examiner

An T. Luu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Drawings***

1. Figure 2 is objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitation “control circuitry coupled to said multiplexer circuitry that instructs said multiplexer circuitry to select said first and second patterns **according to said predetermined sequence**” (emphasis added) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Further, the operational relationship between elements 20 and 32 appears incorrectly depicting.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 11-16 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. There is no further limitation pertaining the circuitry of the parent claim (i.e., claim 1) recited in claims 11-16.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 7 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 appears to be misdescriptive since figure 2 shows CONTROL CIRCUITRY operating independent from "said predetermined sequence".

Claim 20 has similar problem as that of claim 7.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

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international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-8, 11-22 and 24-29 are rejected under 35 U.S.C. 102(e) as being anticipated by the Madrid et al reference (US Patent 6,988,217).

Madrid discloses in figure 5 a circuit for synthesizing a clock signal 5 of a particular frequency, comprising a first memory (i.e., shift register 730A) storing a first byte pattern; a second memory (i.e., shift register 730B) storing a second byte pattern; multiplexer circuitry 770 coupled to said first and second memory and operative to select a predetermined sequence comprising a predetermined number of said first byte pattern and a predetermined number of said second byte pattern; and serializer circuitry 780 that receives said predetermined sequence from said multiplexer circuitry and synthesizes said clock signal by converting said predetermined sequence into a serialized sequence of said selected first and second byte patterns as required by claim 1.

As to claims 2 and 3, col. 6, lines 22-54, discloses the first and second patterns comprising bits selected from the group consisting of logic LOW bits, logic HIGH bits and a combination of logic LOW and HIGH bits.

As to claim 4, figure 5 shows the MUX 770 receiving the first and second patterns in parallel.

As to claim 5, figure 5 shows the serializer circuitry receiving the first and second patterns in parallel and outputs said serialized sequence (i.e., internal clock 230) according to a serial a serial clocking frequency 790.

As to claim 6, it is rejected for reciting an inherent result derived from the apparatus of claim 5.

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As to claim 7, as best understood, figure 5 discloses a control circuit 440 coupled to the MUX 770 to selected the first and second patterns.

As to claim 8, figure 5 discloses the predetermined sequence is programmable by means of circuit 440 and control signal 220B.

As to claims 11-16, they are rejected for reciting an environment in which the above apparatus is applicable (See figure 1). Further, it is a common practice to have a processor mount on a PCB.

As to claims 17-22, the scopes of these claims are similar to that of claims 1-3 and 7.

As to claim 24, it is inherent that the predetermined frequency is a frequency existing at or below said serial clocking frequency since the predetermined frequency is derived from the serial clocking frequency (i.e., clocking).

As to claims 25 and 26, col. 6, lines 60-66, discloses the synthesizer circuit synthesizing another clock cycle having a second predetermined frequency by serializing a second predetermined sequence of third and fourth byte patterns wherein the first and second byte patterns are different than the third and fourth byte patterns.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. Claims 9-10, 23 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Madrid et al reference (US Patent 6,988,217) in view of the Patterson et al reference (US Patent 6,653,957).

Madrid discloses all the claimed invention of claims 9, 10, 23 and 30 except for teaching a differential circuitry for converting the serialized sequence into a differential signal as required by the claims.

Patterson discloses in fig. 2 a differential circuitry²⁷ for converting the serialized sequence 5 into a differential signal 28 as required by the claims.

It would have been obvious to one skilled in the art at the time the invention was made to incorporate the teaching of Patterson into that of Madrid since converting a singled-ended signal to differential signal, or vice versa for that matter, is seen as routine in the art to meet the requirement of component along a processing line.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to An T. Luu whose telephone number is 571-272-1746. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

An T. Luu
3-1-06 *ATL*



TIMOTHY P. CALLAHAN
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